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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(54) Title: SOFTWARE EMULATION SYSTEM WITH DYNAMIC TRANSLATION OF EMULATED INSTRUCTIONS FOR INCREASED PROCESSING SPEED
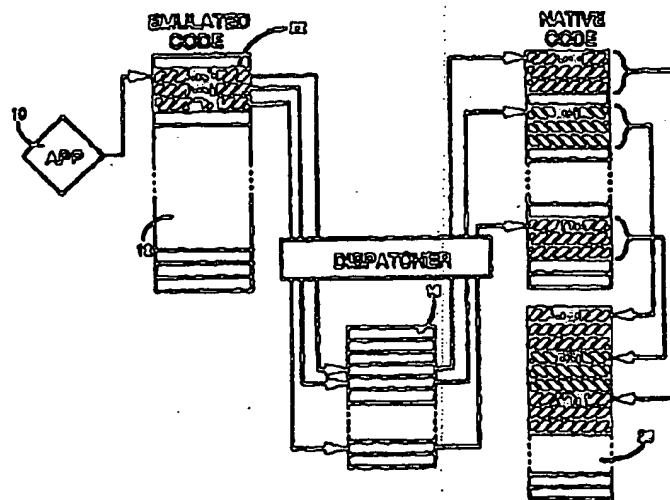
(57) Abstract

The execution time overhead of software emulation is reduced by selecting frequently emulated instruction sequences in the software being emulated, and translating those instruction sequences into the instruction set of the emulating processor. In a first phase, frequently repeated sequences of emulated computer code are identified and selected for translation. In a second phase, the selected sequences from the instruction set of the emulated processor are translated into equivalent sequences for the instruction set of the emulating processor. In a third phase, the instruction sequence of the emulating processor is executed in lieu of emulating the original instructions from the emulated software.

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